

FIBER FOR REINFORCING RUBBER, THE PRODUCTION THEREOF AND HOSE THEREFROM**Publication number:** JP2001146686**Publication date:** 2001-05-29**Inventor:** KANDA YASUMI; SHOJI HIROMITSU; TANIGUCHI MASAHIRO**Applicant:** TORAY INDUSTRIES**Classification:**

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Application number: JP19990322743 19991112**Priority number(s):** JP19990322743 19991112[Report a data error here](#)**Abstract of JP2001146686**

PROBLEM TO BE SOLVED: To provide a production process for rubber-reinforcing fiber that shows good adhesion to halogenated butyl rubber and causes reduced troubles in the hose production process. **SOLUTION:** Polyester fiber or aramide fiber is previously treated with a treatment agent including polyepoxy compound and then treated with an adhesion treatment agent including (A) initial condensate of resorcin and formaldehyde, (B) vinyl pyridine-styrene-butadiene terpolymer inclu45ding 13-20 wt.% of vinyl pyridine, 25-45 wt.% of styrene, and 40-60 wt.% of butadiene, (C) p- chlorophenol-resorcin-formaldehyde cocondensate and finally heat-treated to produce the objective fiber for reinforcing rubber.

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Partial Translation of JP2001-146686A**[Claim 1]**

A fiber for reinforcing rubber characterized by composing of polyester fiber or aramid fiber coated with a adhesive agent, wherein
5 the adhesive agent includes:
polyalcohol and/or polyepoxide,
(A) initial condensation product of resorcinol-formaldehyde,
(B) vinylpyridine-styrene-butadiene terpolymer latex of
10 vinylpyridine: 13 to 20 weight %, styrene: 25 to 45 weight %, and butadiene: 40 to 60 weight %, and
(C) parachlorophenol-resorcinol-formaldehyde condensation product.

[0020]

15 The initial condensation product (A) of resorcinol-formaldehyde may be a resol-type obtained by reaction using alkali metal hydroxide such as sodium hydroxide and potassium hydroxide as catalyst or may be a novolac-type obtained by reaction using acidic catalyst such as oxalic acid and hydrochloric acid. Both types can be used in this invention. When high
20 adhesiveness is required, the novolac-type of the initial condensation product of resorcinol-formaldehyde is preferably used.